

**Claims**

1. (Original) A handheld device comprising:
  - a display having a viewable surface and operable to generate an image indicating a currently controlled remote device;
  - a gesture database maintaining a plurality of remote command gestures, each remote command gesture defined by a motion of the device with respect to a first position of the handheld device;
  - a gesture mapping database comprising a mapping of each of the remote command gestures to an associated command for controlling operation of the remote device;
  - a motion detection module operable to detect motion of the handheld device within three dimensions and to identify components of the motion in relation to the viewable surface;
  - a control module operable to track movement of the handheld device using the motion detection module, to compare the tracked movement against the remote command gestures to determine a matching gesture, and to identify the one of the commands corresponding to the matching gesture; and
  - a wireless interface operable to transmit the identified command to a remote receiver for delivery to the remote device.
2. (Original) The handheld device of Claim 1, wherein the remote receiver comprises a wireless interface of the remote device.
3. (Original) The handheld device of Claim 1, wherein the remote receiver comprises an element of a public wireless telephone network.
4. (Original) The handheld device of Claim 1, wherein the remote device comprises audio/visual equipment.

5. (Original) The handheld device of Claim 4, wherein the identified command controls output of the audio/visual equipment.

6. (Original) The handheld device of Claim 1, wherein the wireless interface is further operable to transmit the matching gesture to the remote receiver for delivery to the remote device.

7. (Original) The handheld device of Claim 1, further comprising:  
a first accelerometer operable to detect acceleration along a first axis;  
a second accelerometer operable to detect acceleration along a second axis, the second axis perpendicular to the first axis; and  
a third accelerometer operable to detect acceleration along a third axis, the third axis perpendicular to the first axis and perpendicular to the second axis; and wherein:  
the gesture database further defines each of the remote command gestures using a sequence of accelerations;  
the motion detection module is further operable to detect motion of the device using accelerations measured by the first accelerometer, the second accelerometer, and the third accelerometer; and  
the control module is further operable to match the accelerations measured by the motion detection module against gesture definitions in the gesture database to identify particular ones of the remote command gestures.

8. (Original) A method for remotely controlling devices comprising:  
generating, on a viewable surface of a handheld device, an image indicating a currently controlled remote device;  
maintaining a gesture database comprising a plurality of remote command gestures, each remote command gesture defined by a motion of the device with respect to a first position of the handheld device;  
maintaining a gesture mapping database comprising a mapping of each of the remote command gestures to an associated command for controlling operation of the remote device;  
tracking movement of the handheld device in relation to the viewable surface;  
comparing the tracked movement against the remote command gestures to determine a matching gesture;  
identifying the one of the commands corresponding to the matching gesture; and  
transmitting the identified command to a remote receiver for delivery to the remote device.
9. (Original) The method of Claim 8, wherein the remote receiver comprises a wireless interface of the remote device.
10. (Original) The method of Claim 8, wherein the remote receiver comprises an element of a public wireless telephone network.
11. (Original) The method of Claim 8, wherein the remote device comprises audio/visual equipment.
12. (Original) The method of Claim 11, wherein the identified command controls output of the audio/visual equipment.

13. (Original) The method of Claim 8, wherein the gesture database further defines each of the remote command gestures using a sequence of accelerations; the method further comprising:

detecting acceleration of the handheld device along a first axis;

detecting acceleration of the handheld device along a second axis, the second axis perpendicular to the first axis; and

detecting acceleration of the handheld device along a third axis, the third axis perpendicular to the first axis and perpendicular to the second axis;

detecting motion of the device using accelerations measured by the first accelerometer, the second accelerometer, and the third accelerometer; and

matching the accelerations against gesture definitions in the gesture database to identify potential indicated ones of the remote command gestures.

14. (Previously Presented) Logic for controlling a handheld device, the logic embodied as a computer program in a computer readable medium and operable when executed to perform the steps of:

generating, on a viewable surface of a handheld device, an image indicating a currently controlled remote device;

maintaining a gesture database comprising a plurality of remote command gestures, each remote command gesture defined by a motion of the device with respect to a first position of the handheld device;

maintaining a gesture mapping database comprising a mapping of each of the remote command gestures to an associated command for controlling operation of the remote device;

tracking movement of the handheld device in relation to the viewable surface;

comparing the tracked movement against the remote command gestures to determine a matching gesture;

identifying the one of the commands corresponding to the matching gesture; and

transmitting the identified command to a remote receiver for delivery to the remote device.

15. (Original) The logic of Claim 14, wherein the remote receiver comprises a wireless interface of the remote device.

16. (Original) The logic of Claim 14, wherein the remote receiver comprises an element of a public wireless telephone network.

17. (Original) The logic of Claim 14, wherein the remote device comprises audio/visual equipment.

18. (Original) The logic of Claim 17, wherein the identified command controls output of the audio/visual equipment.

19. (Original) The logic of Claim 14, wherein the gesture database further defines each of the remote command gestures using a sequence of accelerations; the logic further operable when executed to perform the steps of:

detecting acceleration of the handheld device along a first axis;

detecting acceleration of the handheld device along a second axis, the second axis perpendicular to the first axis; and

detecting acceleration of the handheld device along a third axis, the third axis perpendicular to the first axis and perpendicular to the second axis;

detecting motion of the device using accelerations measured by the first accelerometer, the second accelerometer, and the third accelerometer; and

matching the accelerations against gesture definitions in the gesture database to identify potential indicated ones of the remote command gestures.

20. (Original) A motion controlled handheld device comprising:
- means for generating, on a viewable surface of a handheld device, an image indicating a currently controlled remote device;
  - means for maintaining a gesture database maintaining a plurality of remote command gestures, each remote command gesture defined by a motion of the device with respect to a first position of the handheld device;
  - means for maintaining a gesture mapping database comprising a mapping of each of the remote command gestures to an associated command for controlling operation of the remote device;
  - means for tracking movement of the handheld device in relation to the viewable surface;
  - means for comparing the tracked movement against the remote command gestures to determine a matching gesture;
  - means for identifying the one of the commands corresponding to the matching gesture; and
  - means for transmitting the identified command to a remote receiver for delivery to the remote device.

21. (New) A motion controlled handheld device, comprising:  
a first accelerometer operable to detect acceleration along a first axis;  
a second accelerometer operable to detect acceleration along a second axis, the second axis perpendicular to the first axis;  
a tilt detection component operable to detect rotation having a component around at least one of the first axis and the second axis, the tilt detection component comprising:  
a camera operable to generate a video stream;  
a video analysis module operable to detect a direction of motion based on the video stream;  
a range finder operable to determine distance information including a distance between the device and an object in the video stream, wherein the video analysis module is further operable to determine a magnitude of translation of the device using the distance;  
a display operable to present a current image;  
a motion tracking module operable to track motion of the device in three dimensions using the first accelerometer, the second accelerometer, and the tilt detection component; and  
a controller operable to generate the current image and to modify the current image in response to the motion of the device.